



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,181	09/24/2003	Ting-Pi Yeh	LEEL121774	7212
26389	7590	10/06/2006		
CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347				
			EXAMINER TALBOT, BRIAN K	
			ART UNIT 1762	PAPER NUMBER

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/671,181	YEH ET AL.	
	Examiner	Art Unit	
	Brian K. Talbot	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/28/06</u> | 6) <input type="checkbox"/> Other: _____ |

1. The amendment filed 7/28/06 has been considered and entered. Claims 1-13 remain in the application.
2. Claims 1-13 remain in the application.
3. In light of the newly submitted drawings, the objection to the drawings has been withdrawn.
4. In light of the amendment filed 7/28/06, the 35 USC 112, second paragraph rejections have been withdrawn.

Claim Rejections - 35 USC § 103

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freund et al. (5,989,932), Chakrabarti et al. (6,386,533) or Freund et al. (6,131,263) in combination with Hu et al. (6,618,409).

Freund et al. (5,989,932) teaches as method of apparatus for retaining and releasing laser bars during a facet coating operation. The facet coating operation utilizes spacers to separate the laser bars during coating. In Fig. 9, col. 4, line 65 – col. 5, line 15, Freund et al. (5,989,932) teaches and depicts a spacer having cutout portions defining shoulders.

Chakrabarti et al. (6,386,533) teaches a laser processing fixture whereby laser bars are alternated with spacers in a coating operation to coat the facets of the laser bars. Chakrabarti et

Art Unit: 1762

al. (6,386,533) teaches and depicts in Fig. 5, spacers (64) designed include a notch end portion (66,68) and contemplates various other modifications of geometry of the spacers itself (col. 4, lines 42-65).

Freund et al. (6,131,263) teaches a method and apparatus for releasing laser bars after facet coating. Stacked spacers (110) are arranged to interconnect between adjacent spacers having a laser bar located between the spacers to be subjected to facet coating (col. 2, lines 10-50 and Figs. 1-4).

Freund et al. (5,989,932), Chakrabarti et al. (6,386,533) or Freund et al. (6,131,263) fail to teach the laser diode (bar) having a waveguide wire therein.

Hu et al. (6,618,409) teaches passivation of semiconductor laser facets and coating thereof. The laser diodes (bars) comprise facets to be coated having a waveguide therein extending between the facets of the bar (abstract and col. 2, lines 60-67).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Freund et al. (5,989,932), Chakrabarti et al. (6,386,533) or Freund et al. (6,131,263) process by incorporating a waveguide as evidenced by Hu et al. (6,618,409) with the expectation of achieving similar success, i.e. coating of the facets.

With respect to the claims 2,4,5,8 and 9 reciting dimensions (width, thickness, length, depth) of the spacer bars, it is the Examiner's position that the dimensions of the spacer bar are "result effective" variables which can be optimized through routine experimentation to obtain the desired end product resulting therefrom.

With respect to claim 3 reciting the spacer bar not exceeding the end of the laser bar, Chakrabarti et al. (6,386,533) depicts this feature in Fig. 6.

With respect to claim 6, the claim recites a material for the spacer. It is the Examiner's position that the claimed spacer material is commonplace in the art and one skilled in the art would have had a reasonable expectation of achieving similar success with any of the claimed materials absent a showing of unexpected results.

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canning et al. (4,731,344) or Yuang (2002/0110341) in combination with Hu et al. (6,618,409).

Canning et al. (4,731,344) teaches a method of making a single laser chip having sawn cavities and secondary cuts. Canning et al. (4,731,344) depicts a laser chip having notches etched therein and then coating the facet areas (abstract and col. 1, line 65 – col. 2, line 55).

Yuang (2002/0110341) teaches manufacturing edge emitting or edge coupled waveguide optoelectronic devices. Yuang (2002/0110341) teaches a laser diode having an etched structure and coating the facets thereof (abstract, Figs. 1A-3C and [0021] – [0034]).

Canning et al. (4,731,344) or Yuang (2002/0110341) fail to teach a waveguide wire in the laser bar/diode.

Features described above concerning a waveguide of the laser bar as evidenced by Hu et al. (6,618,409) are incorporated here.

Therefore one skilled in the art at the time the invention was made would have had a reasonable expectation of achieving similar success with the process of Canning et al. (4,731,344) or Yuang (2002/0110341) on a laser diode/bar having a waveguide wire as evidenced by Hu et al. (6,618,409) because the processes are similar and the end result is a facet coating which is achieved by each reference.

With respect to the claims 11-13 reciting dimensions (width, thickness, length, depth) of the spacer bars, it is the Examiner's position that the dimensions of the spacer bar are "result effective" variables which can be optimized through routine experimentation to obtain the desired end product resulting therefrom.

Response to Amendment

6. Applicant's arguments filed 7/27/06 have been fully considered but they are not persuasive.

Applicant argued that the prior art of record fails to teach or fairly suggest a "trench crisscrossed with said waveguide wire".

The Examiner agrees in part. While the reference fail to positively teach this limitation, the prior art teaches spacers having notches, cut-out portions, etchings, as well as various geometric shapes whereby the claimed "crisscrossed trench" would be achieved. (see above).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after


Art Unit: 1762

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 10/2/06
Brian K Talbot
Primary Examiner
Art Unit 1762

BKT